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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,311	01/17/2002	David A. Potts	2032	3673

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,311

Applicant(s)

POTTS, DAVID A.

Examiner

Katherine W Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper No. 4, Response filed 10/11/2003 is acknowledged. The traversal is on the ground(s) that claim 10 is not a patentably distinct species.

Applicant's response to the Restriction requirements, declaring that claim 10 is not a patentably distinct species, is accepted. Therefore, claims 1-12, 16 and 17 will be examined. Should claim 1 be found allowable, claims 13-15 will be rejoined.

However, until claim 1 is allowable, claims 13-15 are withdrawn from consideration.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The disclosure is objected to because of the following informalities: The attempt to incorporate subject matter into this application by reference to application serial No. 09/526381 should be changed to refer to US Patent **6485647**.

Appropriate correction is required.

Claim Restrictions - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6 and 9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant discloses that the leach field comprises conduit buried in soil associated with an influence zone. A leach field inherently must have the upstream end of the conduit(s) connected to the septic tank/distribution tank/source of sewage. While the downstream end can be open or perforated (and thus flow into the conduit is inherent), air pressure applied at the downstream end to the interior of the conduit would not cause air to flow from the conduits to the influence zone, but from the conduit to the septic tank/distribution box. Applicant has not included any step to access the interior of the conduits such that the air pressure would cause flow from the conduits to the influence zone. Examiner will assume that applicant intends to add a step of accessing the upstream end of the conduit.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 10, 11, 16, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson USP 5383974.

Re claim 1: Johnson teaches a method of treating a sewage leach field (abstract), said leach field comprised of buried conduit (10), said conduit having an associated influence zone (11) where waste water flows and is biochemically acted upon, said method comprising causing water to flow within the soil to one or more collection points within the leach field and removing the water from said one or more collection points (col 5 lines 1-63): Johnson uses a penetrating nozzle 45 to force high pressure air or water into the soil to agitate the sand near the perforations of the drainfield laterals. Broadly defined,

soil¹

soil (soil) *noun*

1. The top layer of the earth's surface, consisting of rock and mineral particles mixed with organic matter.¹

would inherently include the sand or gravel around the drainfield laterals. By definition, drain field rejuvenation (col 5 line 3) results in causing water to flow into one or more collection points within the drain field. Once this injection and agitation causes the water in the drain field to flow into the collection points, it is removed via suction of the drainfield lateral (col 41-55).

Re claims 2 and 4-5: The collection points are disclosed as the interior of the buried conduits in col 5 lines 14-17 and lines 32-36. When suction is applied to the conduit (10), since it is perforated (Col 1 lines 15-42) and thus the interior is in contact with waste water in the zone of influence (11) which will inherently cause waste water to

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction

flow through the perforations and into the interior of the conduit. A suction is by definition a subatmospheric pressure.

Re claim 3: Inserting a pipe into soil at a point spaced apart from the conduit and injecting air or water with sufficient pressure to uplift/fragment soil and create new passages is taught in col 5 lines 18-47.

Re claims 10-11: The collection points are disclosed as the interior of the buried conduits in col 5 lines 14-17 and lines 32-36. Although vertical pipes as collection points are an admitted non-patentably distinct species by the applicant and thus obvious over horizontal collection points, the end of the penetrating nozzle 45 is perforated to inject air or water, or a suction, in col 5 lines 41-47. The pipe is injected essentially vertically in Fig 4 and col 5 lines 21-26. When suction is applied to the conduit (10) or penetrating nozzle (45), since they are perforated, the interiors are in contact with waste water in the zone of influence (11) which will inherently cause waste water to flow through the perforations and into the interior of the conduit or nozzle. A suction is by definition a subatmospheric pressure.

Re claims 16 and 17: Johnson teaches the apparatus in Figs. 1, 4 and 7 and the abstract and col 1 lines 16-48 and col 2 line 43-col 3 line 13 and col 5 lines 9-55.

Means for applying air pressure when the means for causing water to flow from the influence zone (suction) is taught in col 5 lines 41-55.

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson.

Re claim 8: As discussed above, Johnson teaches all the elements except pumping out the septic tank in cooperation with removing the water from said conduit. A septic tank (2) as part of the system is taught by Johnson in Fig 1. Johnson further teaches that the distribution box (9) is opened to access the conduits in Col 5 lines 3-17. Examiner takes Official Notice that pumping out the sludge in a septic tank is routinely required maintenance to ensure septic system and drain field operation and minimize the solids sent to the drainfield which will subsequently contribute to drainfield plugging, and thus it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to do this in conjunction with the drainfield rejuvenation, as once the equipment and manpower to open and pump/vacuum the system are on site, the tank would be cleaned at the same time to ensure that the "waste, scum, and debris" removed from the lateral would include the waste scum and debris in the bottom of the tank, thus maximizing system performance while minimizing costs for maintenance.

10. Claims 6-7 and 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Hassett USP 5827010.

Re claims 6, 9, and 12: Johnson as discussed above teaches all the elements except stopping removal of water and applying air pressure inside the conduit forcing

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flow into the influence zone. Johnson teaches applying water pressure to the interior of the conduit in col 5 lines 5-17, and alternating air or water pressure with suction is taught in col 5 lines 41-55. Johnson teaches that suction, air, and air and water are interchangeably applied in col 5 lines 41-55. However, while Johnson teaches that the conduit has water pressure applied, it does not teach that air pressure is applied to the buried conduits comprising the leach field (10). Hassett teaches that air pressure is applied to the inside of the buried conduits in col 2 lines 16-39 and col 6 lines 8-32. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Johnson and Hassett before him at the time the invention was made, to modify Johnson to include using air pressure in the conduits as taught by Hassett instead of water pressure, in order to obtain a cleaning and rejuvenation of the drain field while not adding to the flooding or water level of the field. One would have been motivated to make such a combination because improved drainage would have been obtained, depending on the particular application, as taught/suggested by Johnson in col 5 lines 48-55 and the water level of the drainage field would remain below the required depth as taught by Hassett in col 1 lines 26-32.

Re claim 7: Hassett teaches covering soil with an impenetrable surface (48) to impede air flow in Fig 2 and 3 and col 4 lines 27-37. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Johnson and Hassett before him at the time the invention was made, to modify Johnson to include impeding the flow of air from the soil surface as taught by Hassett, in order to maintain the positive pressure in the selected subterranean volume and thus reduce the flooding or

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water level of the field. One would have been motivated to make such a combination because it would help ensure the water level of the drainage field would remain below the required depth as taught by Hassett in col 1 lines 26-32.

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4180.

Kwm
11/25/2003


J. J. SWANN
SUPERVISORY PATENT EXAMINER
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